



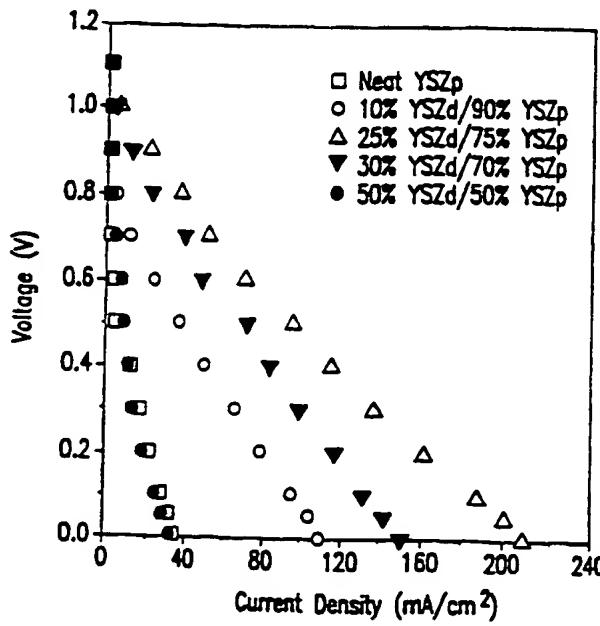
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(54) Title: METHOD FOR SOLID OXIDE FUEL CELL ANODE PREPARATION

(57) Abstract

A method for preparation of an anode for a solid oxide fuel cell in which a plurality of zircon fibers are mixed with a yttria-stabilized zirconia (YSZ) powder, forming a fiber/powder mixture. The fiber/powder mixture is formed into a porous YSZ layer and calcined. The calcined porous YSZ layer is then impregnated with a metal-containing salt solution. Preferred metals are Cu and Ni. An anode and a method for manufacturing a fuel cell containing such anode is also disclosed. Such anode is particularly performant when the fuel cell is fed with dry hydrocarbons, in absence or low content of steam.

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YSZd = dense YSZ
 YSZp = porous YSZ
 □ $P_{max} = 5.1 \text{ mW/cm}^2$
 ○ $P_{max} = 19.4 \text{ mW/cm}^2$
 △ $P_{max} = 34.6 \text{ mW/cm}^2$
 ▽ $P_{max} = 4.0 \text{ mW/cm}^2$